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10/032,370	12/21/2001	Jeffrey A. Trogolo	A-036	5277

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AGION TECHNOLOGIES  
60 Audubon Road  
Wakefield, MA 01880

EXAMINER
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EBRAHIM, NABILA G

ART UNIT	PAPER NUMBER
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1618

MAIL DATE	DELIVERY MODE
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01/06/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/032,370

**Applicant(s)**

TROGOLO ET AL.

**Examiner**

NABILA G. EBRAHIM

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5-7, 10-21, 33, 34, 45, 48-51 and 53-64 is/are pending in the application.
- 4a) Of the above claim(s) 45, 50, 51, 53 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-2, 33, 34, 48, 49 and 55-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The receipt of claims amendments and Applicant's arguments dated 08/28/2009 is acknowledged.

#### ***Status of Claims***

Claims 1-3, 5-7, 10-21, 33, 34, 45, 48-51 and 53-64 are pending in the application.

Claims 45, 50, 51, 53 and 54 were withdrawn from consideration.

Claims 1-7, 10-21, 33, 34, 48, 49 and 55-64 are under current examination.

***Status of Office Action:*** Final.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In light of amending the claims, the rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is hereby withdrawn.

#### ***Claim Rejections - 35 USC § 102***

1. The rejection of claims 1-3, 10-12, 22, 33, 34, 48, and 49 under 35 U.S.C. 102(b) as being anticipated by Hagiwara et al. US 4775585 (Hagiwara) is hereby withdrawn.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, and 10-18 remain rejected under 35 U.S.C. 102(b) as being anticipated by Yamaguchi Chiharu et al. JP 11-222402, machine translation (JP).

JP teaches an antibacterial resin composition in an antimicrobial polymer particles. The antibacterial metallic component is chemically combined with a polymer particle namely, a polymer particle which constitutes antimicrobial polymer which comprises hydrophilic polymer. The antibacterial metallic component as used in the invention means that an antibacterial metallic component is held the surface and/or inside a polymer particle, as long as antibacterial properties are revealed [0007]. Mean particle diameter of a polymer particle may be 0.1 nm - about 100 micrometers. As said antibacterial metallic component, silver, copper, zinc, nickel, cobalt, chromium, etc. can be illustrated. A holding amount of an antibacterial metallic component is metal conversion, and is about 0.01 to 70% of the weight of the whole. Said antimicrobial polymer can be manufactured by joining together chemically and making a functional group of hydrophilic polymer particles [0006]. In addition, the antimicrobial polymer particle is 1 to 50% of the weight of the whole [claim 6]. The metal can be in the form of a salt [0028] and the shape of the particle can be a rod or petaloid [0025], which read on the high aspect ratio greater than 2 as required by the instant claims since a tube or a rod have a length that is more than double its diameter. JP teaches also that the organic system antimicrobial agent is excellent in dispersibility over resin among said antimicrobial agents [0005], (the disclosure reads on ability of the additive to form discrete microparticles which is recited in instant claim 1). A ceramic carrier can be used [0040]. The polymer used can be polyurethane [0036]. An ammonium compound is comprised in the composition [0027]. Note that though JP did not use the ammonium salt for discoloration, same compounds have same properties and should accrue same function even if used for a different purpose. Note also that JP teaches combination of two or more sorts of metallic component [0026]. Regarding the requirement of claim 10 of hydrophilic polymer is having water absorption at equilibrium of at least about 20% by weight, it is noted that since JP used hydrophilic polyurethane required by the instant claims

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then the absorption at equilibrium should be the same especially that JP teaches that Various hydrophilic fragmentation and segments can be used as hydrophilic units such as units of vinylpyrrolidone [0009 and 00010]. Note that vinylpyrrolidone monomer is used by current application to render polyurethane into a hydrophilic polymer [see instant specification paragraph 0052] and as stated by Applicant in the declaration.

Amendments to claims: Claim 5 is not included in the rejection since applicant limited the inorganic antimicrobial agent is an antimicrobial water soluble glass solely. The rest of the amendments remain properly rejected under 35 USC §102 as being anticipated by Yamaguchi Chiharu et al.

The amendments to the claims reciting the antimicrobial glass and ion-exchange type antimicrobial agent would not differentiate the instant claims over the prior art because because Yamaguchi teaches the soluble glass (silica gel [0050]).

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-7, 10-21, 33-34, 48-49 and 55-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiharu et al. JP 11-222402 (JP) in view of Hagiwara et al. US 4775585 (Hagiwara) and further in view of and further in view of Makita et al. US publication 20010019727 (Makita).

JP is relied upon for the reasons set forth hereinabove. Note that JP disclosed the use of zeolites as known in the art.

JP did not teach the zeolite as a ceramic carrier of choice.

Hagiwara teaches a polymer article having antibacterial properties as well as a physical property similar to those of the polymer itself, which contains zeolite particles retaining metal-

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ions, which show an antibacterial effect at the ion-exchange sites of the zeolite particles. The zeolite particles are retaining one or more metal ions having a bactericidal property (col. lines 56-59). The polymer can be highly hydrophilic (col. 8, lines 7+) and the antimicrobial can be a metal salt of a metal having a bactericidal activity, such as silver, copper and zinc (col. 3, lines 12+). A particle size of the zeolite can suitably be selected depending on application fields. When granules or coarse fibers, the particle size may be in the range of a few microns to tens microns or even above several hundred microns (col. 4, lines 9+). Note that a fiber is inherently a high aspect ratio particle and that the ratio recited in instant claim 1 as greater than about 2 is also inherent in fibers because the fiber's length is usually -if not always- more than double its width or diameter. Note that the definition of fiber is as follows.

Fiber:

*Materials:* A thin, threadlike piece of any material.

"fiber". Academic Press Dictionary of Science and Technology (1992). Retrieved 28 August 2006, from xreferplus. <http://www.xreferplus.com/entry/3104363>.

The fibers or the yarns according to Hagiwara can be mix woven, cross woven or union knitted with fibers or yarns having no metal-zeolite to give an antibacterial fiber article with various feelings and functions. This disclosure reads on the limitations of instant claims 33, and 34.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the hydrophilic polymer particles containing the metal ingredient because Hagiwara teaches that zeolite defined in the invention has an advantage that the reactivity thereof with a metal having a bactericidal activity, such as Ag, Cu, and Zn is high, and that its ion-exchange capacity is large and, therefore, a large amount of Ag.sup.+, Cu.sup.2+, or Zn.sup.2+ having a bactericidal activity can be retained in the zeolite.

Both references are deficient in disclosing the sodium nitrate dopant.

Makita teaches biocidal material which is excellent in chemical resistance and heat resistance and capable of continuously releasing a microdose of silver ion. The biocidal comprises an alkali metallic element. Among many compounds containing an alkali metal, carbonate, hydrogencarbonate and nitrate are preferable, and sodium carbonate, potassium carbonate and sodium nitrate are more preferable [0057]. The biocidal contains hydroxyapatite [0069] and active ingredient comprising silver ion, copper ion or zinc ion. The biocidal may contain an ammonium compound [0058].

Thus it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate a alkali metallic element such as sodium nitrate in the biocidal since the two inventions have the same endeavor and also because Makita teaches that the biocidal is excellent in chemical resistance and heat resistance and capable of continuously releasing a microdose of silver ion and can be recycled [0008].

Finally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composition of JP by choosing a ceramic carrier such as zeolite taught by Hagiwara and add sodium nitrate as taught by Makita because Hagiwara teaches many advantages of using zeolite and Makita described the antimicrobial compositions as having chemical resistance, heat resistance and have excellent antimicrobial effect. The expected result would be a rod or fiber shaped hydrophilic polymer particle retaining silver, zinc or copper and is comprised in a zeolite carrier.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re*

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*Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3 and 5-7 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,866,859. Although the conflicting claims are not identical, they are not patentably distinct from each other because '859 recites a composition of hydrophilic coat on an article which contains a polysaccharide component (hydrophilic polymer), including a silver ion exchanged zeolite. Note that the claims of '859 do not recite particles, however, it recites that the antibiotic ceramic component is dispersed within the polysaccharide which shows that the component is in the form of particles. Note also that '859 does not recite the water absorption at equilibrium, however, the claim does not exclude those percentages since it does not recited otherwise.

Claims 1-7, 10-22, 48-49 and 55-64 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 7357949. Although the conflicting claims are not identical, they are not patentably distinct from each other because Patent '949 is directed to the same subject matter recited in the instant claims. '949 recites antimicrobial additive comprising ion-exchange type antimicrobial agent comprising a ceramic carrier and metal ion and a hydrophilic polymer having the same water absorption at equilibrium and the same concentration of the antimicrobial agent. The polymer is hydrophilic polyurethane, the ceramic is zeolite. A discoloring ammonium is used, and the antimicrobial additive comprises a sodium nitrate dopant.



Claims 1-7, 10-15, 22, and 48-49 remain provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 11/336699 in view of US publication Modak et al. 20010010016 (Modak).

'699 recites an antimicrobial additive dispersed in a hydrophobic matrix polymer. The additive is in the form of discrete particles of a hydrophilic polymer having encapsulated therein or dispersed therein one or more particles of at least one antimicrobial metal such as silver, zinc or copper. The water absorption at equilibrium of the hydrophilic polymer is at least 20% and the concentration of the antimicrobial agent is the same as recited in the instant claims.

The difference between '699 and the instant claims is that the antimicrobial agent is dispersed in a hydrophobic polymer matrix.

Modak teaches polymeric medical articles comprising combinations of triclosan and silver-containing compounds. In a preferred embodiment, a hydrophobic polymer such as polyvinyl chloride may be used to create a hydrophobic matrix into which PVP and antimicrobial agents may be impregnated. Other useful hydrogels that may be used to promote enhanced antimicrobial efficacy [0049].

Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to impregnate or coat the antimicrobial comprising silver with a hydrophobic polymer such as polyvinyl chloride to enhance the antimicrobial efficacy.

This is a provisional obviousness-type double patenting rejection.

***Pertinent Prior Art.***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is KURODA RYUZO et al. JP 10-067514 (Kuroda).

Kuroda teaches that to obtain a zeolite high in degree of crystallization, small in particle diameter, large in external specific surface area, by selecting the subject zeolite which is a laminar body having an average particle diameter and an aspect ratio of specific values. This zeolite is obtained by selecting the subject zeolite which is a laminar body having  $\leq 0.5\mu\text{m}$  average particle diameter and  $\geq 2$  aspect ratio.

The disclosure shows that the aspect ratio  $\geq 2$  was known in the art as means to increase the external surface area of the zeolite which is in the instant case needed to enhance the release of the silver ions and consequently the antimicrobial effect.

The reference was not relied upon because the zeolite disclosed was used as a catalyst or adsorbent.

### ***Response to Arguments***

Applicant's arguments filed 08/18/2009 and 08/31/2009 have been fully considered but they are not persuasive.

### **Restriction/Rejoinder**

Applicant traverses the restriction requirement alleging that no additional search burden is presented and that looking at the classes and subclasses already searched (though it is noted several of the Search Notes do not identify any searched classes and subclasses) it would appear that the same art would necessarily be searched for both inventions.

To respond: Applicant recognized from the Search Notes that the Examiner depends on "West" data bases which as applicant is surely aware does not require specific class and subclass for starting a search. Further, the Examiner required restricting between a method and a product wherein the product as claimed can be made by another and materially different process. Finally, it is totally different when searching a method and a composition because the prior art applicable to one invention would not likely be applicable to another invention.

Thus, the requirement is still deemed proper and is therefore made FINAL.

**Anticipation in view of Yamaguchi JP 11-222402**

Applicant argues:

- The antimicrobial hydrophilic polymer may be made using monomers that already have the antimicrobial metal component are then bonded thereto or the hydrophilic polymer can be formed and then subjected to a chemical process whereby the antimicrobial metal components are then bonded to various functional groups along the polymer chain. The inorganic antimicrobial particles of the instant claimed invention are physically blended into the hydrophilic polymer matrix.

- To respond: the method of making the composition does not have a patentable weight. Yamaguchi and instant application's compositions are made of hydrophilic polymer particles containing a metal component. Also, page 8, last paragraph of the instant application shows that the cross-linking is a possibility of making the instant claimed particles. Finally, Applicant is arguing a product-by-process in which determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. Since the product is the same as or obvious from a product of the prior art, then the prior art reads on the claim.

- Yamaguchi teaches that its antibiotic metallic component may arise from the use of an antimicrobial metal containing quaternary ammonium compound [0027]; the quaternary ammonium compound would not be expected to inhibit discoloration.
- This was not found persuasive because a compound and its properties are not separable. A compound can accrue two functions simultaneously, the antimicrobial metallic and the discoloration. Note that many compounds are known for more than one function, for example, acetaminophen works for pain and works for fever.

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- The Examiner alleges that Yamaguchi teaches the use of a ceramic carrier [0040], the examiner's mistaken inference suggesting that Applicant applies an antimicrobial hydrophilic polymer to its ceramic particles. Such is not the case nor is that the teaching of Yamaguchi; rather, in paragraph [0040] Yamaguchi indicates that coatings containing their antibiotic cross-linked hydrophilic polymer particles may be applied to a ceramic substrate.
- Applicant is correct regarding the substrate. However, the rejection is still appropriate because instant claims recites that the ceramic comprises a zeolite and Yamaguchi discloses the zeolite [see 0050].

**Obviousness over Yamaguchi et. al. (JP 11-222402) in view of Hagiwara et. al. (US 47758 and further in view of Makita et. al. US 20010019727.**

Applicant argues:

- Yamaguchi is cited for the reasons set forth above. However, Yamaguchi is acknowledged as failing to teach the use of zeolites.
- This was not accurate because Yamaguchi teaches a zeolite [0050]. However, Yamaguchi is deficient in disclosing a zeolite carrier.
- Yamaguchi teaches against the use of inorganic antimicrobial agents like silver zeolites in polymer resins and coatings owing to a number of adverse properties and characteristics, all as more specifically set forth in Yamaguchi paragraphs [0003-0004]. Indeed, several of these disadvantages including poor dispersion and discoloration [0003], disadvantages also noted by Applicants [0007-0008], are specifically addressed and overcome by the specific antimicrobial hydrophilic polymers of Yamaguchi.
- To respond: the cited paragraphs in Yamaguchi [0003-0004] demonstrate the problem to be solved by the invention. Therefore, it does not teach against the use of inorganic antimicrobial

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agent but it shows that the problems that were known before publishing Yamaguchi were solved by the publication.

- Substituting the antimicrobial zeolites of Hagiwara for the antimicrobial metallic component of Yamaguchi would render Yamaguchi unsuitable for its intended application. Specifically, as discussed in Yamaguchi [0003 and 0004] the combination would result in coating where settling of the antimicrobial agent, discoloration and dispersion among other issues, would be a problem.
- To respond: this was not found persuasive because Yamaguchi's paragraphs which applicant refers to are not the invention; however, the two paragraphs demonstrate the problems which the invention is intended to solve.
- Finally, the proposed combination would completely change the very principal of operation of the Yamaguchi teachings. Specifically, Yamaguchi relies upon available metal atoms of its antimicrobial metallic component to react with and bond to the functional groups or moieties on its hydrophilic polymer chain.
- To respond: as discussed above, the argument deals with the process by which the antimicrobial is made which is not of patentable value since the composition is the same.
- It may well be that the sodium nitrate of Makita, if used, is the site of the ion-exchange process whereby the antimicrobial metal ions are incorporated into the biocide compound. Thus, contrary to Applicants' claims where the sodium nitrate is added to aid in the release of the metal ions, in Makita it appears they are associated with the uptake of antimicrobial metal ions.
- This was not found persuasive because the compound (sodium nitrate) should perform its effect as a dopant even if Makita is using it for a different reason.

#### **Double Patenting**

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- Claims 1-3 and 5-7 recite an antimicrobial additive in the form of hydrophilic polymer particles having incorporated therein particles of an antimicrobial water soluble glass and/or ceramic particles having ion-exchanged antimicrobial metal ions. While Applicants' antimicrobial additives could be used in substitution for the silver zeolites of '859, '859 does not teach or make obvious the antimicrobial additive particles of Applicants and the same are patentably distinct from the antimicrobial agents and polymer compositions of '859. Accordingly, the provisional obviousness-type double patenting rejection should be withdrawn.

To respond: Applicant's argument is not clear, however, if applicant means that the instant invention is an additive, while '859 is a coating, then it is noted that the intent of use of a composition does not have a weight. Instant claims recite the hydrophilic polymer particles and the silver zeolite in an antimicrobial composition same as '859.

- The examiner previously required a restriction as between the instant claimed antimicrobial additive particles and antimicrobial polymer compositions comprising a polymer matrix having such antimicrobial additive particles dispersed therein (See the February 26, 2003 Restriction Requirement). There the examiner concluded that the antimicrobial additives were patentably distinct over polymer compositions containing the additives. Consequently, it cannot now be stated that the instant claims are not patentably distinct over '949. Accordingly, the provisional obviousness-type double patenting rejection should be withdrawn.

To respond: the restriction requirement did not conclude that the antimicrobial additives were patentably distinct over polymer compositions containing the additives. The restriction requirement was about a process of making and a product made wherein the product's release might have been altered by comprising the antimicrobial additive in hydrophobic polymer or in a polymer matrix (see office action dated 10/28/2008, page 2). Consequently, the double patenting rejection is appropriate and is maintained.

- The cited, patent application 11/366699, now an issued patent 7354605, is a division of '949 mentioned in the preceding section. This patent claims the use of the antimicrobial compositions of '949 wherein the matrix is a hydrophobic resin in medical articles.

To respond, application '949 is still rejected under obviousness double patenting. Further, the issued patent is not a method of use; it is a composition that comprises the same antimicrobial additive in a hydrophobic matrix. The additive is in the form of discrete particles of a water absorbing, water vapor absorbing and water wettable polymer having encapsulated therein the antimicrobial metal ion. Therefore, a nonstatutory obviousness-type double patenting rejection is appropriate.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NABILA G. EBRAHIM whose telephone number is (571)272-8151. The examiner can normally be reached on 9:00AM - 6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nabila Ebrahim/  
Examiner, Art Unit 1618

/Michael G. Hartley/  
Supervisory Patent Examiner, Art Unit  
1618